

# A New Generation of Garage Doors

These aren't the garage doors you threw a ball against as a kid



A band of windows in these Raynor Prisma doors (\$525) helps them integrate nicely with the house by picking up its brick pattern.

It's not every day that you're in the market for a new garage door. So if you think you know what to expect when shopping for a new one or feel that current models are the same as your 15-year-old door, you're in for a surprise. Today's doors are stronger, more secure and better insulated, and they require much less maintenance than their predecessors. And you've never before had such a range of choice in materials, styles, colors and window treatments.

**Selecting a material.** Most new garage doors are made of steel backed by rigid-foam insulation. Panels made of 24-ga. steel are the strongest (26- and 28-ga. steel is also used); most are produced with an embossed wood-grain pattern or with a smooth finish. Look for a model with a baked-on primer and polyester topcoat for maximum rust protection. Warranties for steel doors start at 10 years; limited lifetime coverage is not uncommon. Once the mainstay garage door material, wood has taken a backseat to other materials in the middle of the market. To a great extent, this is due to the added maintenance and regular painting wood doors require. Most wood doors are constructed with a hemlock frame and hardboard panels. But custom doors are often made from solid Douglas fir. The typical warranty for a factory-made wood door is one year; many custom doors are backed for 15 years. Plastic doors are fairly new to the scene, and they might eventually be the door of choice. Like steel, plastic doors offer lightweight durability without routine upkeep. Unlike their metal and wood counterparts, they're corrosion- and rot free, and they operate almost silently. Because they contain UV-resistant additives, light-colored versions can take sun without fading. Gadco's polyethylene door is made from the same high-density plastic used for truck-bed liners. Overhead Door's Renata model, made of color-through PVC, offers a selection of panel designs that go well beyond the basic rectangle. Plastic doors carry 20-year or longer warranties.



A look behind the steel skin of a door reveals two types of insulation options: a 7/8-in. polystyrene layer bonded to the metal .

## Insulation, Aesthetics

If you live in a three- or four-season climate and your garage is attached to your home, or if there's finished space like a guest room over your garage, an insulated door makes sense. Not only does it cut down on cold but it also dampens noise and makes the door skin less vulnerable to denting. A steel-door "sandwich" made of thick-gauge steel outer skin, a core of insulation adhered to this skin and a light-gauge backing material of steel or plastic make very strong but lightweight door. The thickness of this insulation can range from a thin sheet of polystyrene to as much as 2 in. of polyurethane or polystyrene, with resulting R-values ranging from 5 to 10. However, you need to ensure you're comparing apples to apples when shopping. Most manufacturers measure the R-value based on the overall door, but some base their numbers on the center of a panel, which produces a higher R-value. Some plastic doors, as well as some top of the line wooden ones, come insulated. Rubber bulb or flange weathersealing at the bottom of the door completes the stormproofing while keeping dirt, debris and water out. **Looks count.** A garage door can be a big part—up to 30 percent—of the front exterior of your home. All major companies offer numerous options to add a bit of style to a standard door. You can choose a basic frame-and-panel design or elaborate, sculpted segments. If you own a contemporary home, you might consider a door with bands of horizontal ribbing, or a nontextured flush door design. Generally, the color palette for garage doors is limited to white, beige and brown. However, Gadco offers blue, grey, hunter green and deep crimson on some of its doors. If you're truly picky when it comes to color, painting your metal door—or painting or staining a wood one—is an option. Windows, available as snap-in or screw-in units, come in a wide variety of styles, from basic rectangular lights to multipanel sunburst patterns. For the privacy-conscious, "etched" or colored panes admit light but don't allow a clear view of the garage interior. You'll have to do some prioritizing when deciding on a window material: Acrylic panes are less likely to shatter under impact, but they lack the thermal benefits that laminated glass offers. If the above options don't fulfill your appetite for individualism, think about investing in a custom door. Designer Doors, of River Falls, Wisconsin,

hand-builds carriage-type doors of any style that appear to slide, fold or swing outward but actually roll up overhead, allowing them to be used in conjunction with an automatic opener. Holmes Door also makes a carriage-house door that swings up to open.



Backed with vinyl

## Costs, Safety

Because there are almost limitless ways doors can differ—size, decorative treatments and insulating qualities are just a few of the variables—it's difficult to make accurate price comparisons between types. Generally, steel doors are the most budget-friendly, with wood and plastic models more expensive. Custom work can cost twice as much. **Safety features.** On many doors, the joints between door sections now come with shaped edges that push fingers out of the cracks as they close; they're a must for families with kids. Wayne-Dalton's WayneGard finger-saving feature was recognized by the Consumer Product Safety Commission in 1998 for "its significant advancements in garage-door safety." Such joints are found on steel and plastic doors; wood doors typically have shiplap connections that can pinch down on objects. In 1993, the federal government set new safety standards for automatic garage-door openers. Among the features manufacturers must now provide are automatic door reverse (if the edge of the door makes contact with an object while closing, the door automatically reverses direction) and an electronic-eye system that sends the door upward if anything breaks the light beam across the door opening.



A 1 3/8- to 2-in. slab of polystyrene sandwiched between two steel panels

## Hardware, Installation

When you buy a door, you'll need to select spring and track systems as well. There are two kinds of spring systems. Extension springs are simpler to install. They function in pairs, stretching along either side of the door, parallel to the ceiling. They need about 10 in. of headroom. Torsion springs go over the opening of the door. They work by winding and unwinding in place when the door is raised or lowered. The torsion spring distributes the weight of a door more evenly than do extension springs, making them better suited for extra-heavy or wide doors. They require 12 in. of headroom, although special hardware is available for doors with low clearances. There are two choices in tracks: hot-dipped galvanized or powder-coated steel. While the former is perfectly serviceable, the latter gives a more finished appearance to the mechanism and can cut down on the noise of the door for just a few dollars more. On higher-quality steel rollers the ball bearings are housed in sealed races. Nylon wheels are quieter and more durable than steel wheels. An innovative roller alternative comes from Overhead Door. The Ultra-Glide system utilizes C-clips that slide silently along a coated steel tube. **Installation.** It's best not to mix and match parts for a garage door. You run the risk of incompatibility between track and door, which could lead to a serious failure of the door, and replacing just one component of the door system can void the warranty. Many homeowners prefer to entrust door installation to an installer/dealer, who will get the job done in about three hours and haul away the old door, too. If you have the time, tools and interest, you might want to do the work yourself. Plan on devoting 8 to 12 hours to the project; for at least a few of those, you'll need a helper. The equipment list includes a drill with 1/4- and 3/8-in. bits, hammer, screwdriver, measuring tape, C-clamps or vice grips, level, socket wrench, pliers, stepladder and saw horses. Clopay has developed a very helpful instruction kit, complete with videotape, for both torsion and extension systems. Wayne-Dalton is another company with strong support for the do-it-yourselfer. Regardless of who does the installation, you'll quickly appreciate the lift a new door gives to your home.



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# Maintenance and Painting Tips

Tom Wadsworth, of Raynor Garage Doors, suggests the following to **keep a steel door and hardware in good condition**:

- Two times a year, oil torsion springs with a lightweight motor oil. Apply a pencil-thin line of oil across the top of the springs, stopping 2 in. from each end. Extension springs don't need oiling.
- Lubricate the radius sections of the tracks (the curving segments) every six months. Don't use grease—it attracts dirt that will clog the tracks and rollers.
- Wash the exterior of the door with soapy water to prevent corrosive substances from seeping into tiny cracks.

**Don't Like White or Beige?** It is possible to paint a steel garage door. Tony East, product engineer for Amarr Garage Doors of Winston-Salem, North Carolina, gives some pointers on the process:

- Using a soft-bristle brush, sponge or low-pressure sprayer, clean the door by washing it with a solution that combines 1 cup of low-phosphate (less than 0.5 percent) detergent with 5 gal. of warm water. Thoroughly rinse with clean water and let dry completely.
- If there are any minor surface imperfections, like scratches that don't go through to the metal substrate, lightly sand them smooth. If there are gouges in the topcoat that do show bare metal, sand the area lightly and apply a primer specifically designed to protect exposed galvanized steel from corrosion.
- Once the door has been properly prepped, it must be painted within 24 hours. Apply a uniform coat of well-mixed, high-quality latex exterior house paint on a dry door. Paint early in the morning to minimize uneven drying by the sun.